

REMARKS

Claim 4 stands rejected under 35 USC §112 first paragraph for using the term "adjacent" in claim 4 which does not appear in the original specification. While Applicant has amended claim 4 to clarify the position of the ply layers, it is noted that the figures and specification as well as the original claim 4 makes clear the position of the respective layers. Applicant also notes that on page 3 of the Office Action, lines 2-3, the Examiner has interpreted Applicant's claimed subject matter "to include layers adhered by adhesive, as disclosed in the specification." As will be discussed in detail below, multi-wall gusseted bags of paper plies are not adhered by adhesive along the main portions. Rather, the paper layers are free to "float" in that adjacent layers are independently capable of relative movement and positioning. It is this non-adhered property that are an inherent part of multiple paper ply gusseted bags and to which the present subject matter is directed.

Clarification is also requested as to the status of Claim 1. The Examiner had previously made a species restriction and had stated that Claim 1 is generic. Applicant is unclear why a generic claim would not also be examined along with the identified species. If the claim is generic and it does read on the species, it should be included in the present examination.

Generic claim 1 has not been examined. Claims 4 and 6 are rejected under 35 USC §103(a) as being unpatentable over Farley in view of Chandler. Claims 5 and 7-8 are rejected under 35 USC §103(a) as being unpatentable over Farley in view of Chandler and further in view of Rodish. Applicant respectfully submits that the references fail to teach or suggest Applicant's amended claims.

As a threshold matter, it appears that the Examiner is interpreting the claimed subject matter as if the multiple paper ply layers within the bag structure are adhered by adhesive. Applicant respectfully submits that, as is known in the art of multiple-ply paper bags, the bag strength and useful properties come from the paper plies being substantially unsecured along the main body portions of the overlapping plies. In gusseted bags such as pet food bags, the respective ply layers are spot glued only along the portion that defines the bag opening so that during a mechanized filling

operation and when the bag is subsequently accessed by consumers, the bag opens to the interior storage volume space. The adjacent paper plies are spot glued together in that location only.

As is well known in the art of multi-wall paper ply bags, the individual plies are not secured together by adhesive or other securing means. The independent movement of the multiple plies allows for the bags to readily receive odd sized objects, can expand more easily during filling, and offers superior strength that would not be found if the multiple plies were adhesively bound together into a single unitary substrate.

Applicant's specification incorporated by reference two prior art patents directed to the gusseted wall bags to which Applicant's subject matter is directed. As stated in U.S. Pat. No. 3, 687,356 and which is incorporated by reference, it is noted on Col. 2, Lines 33-40 that it is important that ply layers may expand or contract without encountering tension or compression forces that would occur if the plies were inter-bonded. In Figure 3 of the '356 patent, it is shown that the multiple paper plies are spot glued only along locations which correspond to the accessible edge of the resulting bag. The main body wall portions of the resulting plies are not secured together by any type of adhesive or bonding agent but are simply held in position by being sandwiched together between other ply layers which are spot glued along corresponding edges.

Further, in U.S. Pat. No. 6,599,016 which is also incorporated by reference into Applicant's specification, a detailed description of forming a bag from a plurality of paper plies is disclosed. As stated in Col. 4, lines 40-54, to the extent adhesive is used at all in the formation of a bag, adhesive is applied only to the inside surfaces as represented by the diagonal broken lines in Figure 1 of the '016 patent. Further, as noted in the cross-section of Figure 3 in reference to multiple paper plies, there is no mention or illustration of any adhesive layers between the various plies. Accordingly, Applicant respectfully submits that it is well known in the art that multiple ply paper bags of the type to which Applicant's invention is directed do not use adhered layers in the main body portions of the bags.

The primary reference of Farley discloses film and film substrates having multiple plies, yet each ply layer is bonded along an entire surface to at least one adjacent ply layer. The film layer technology in Farley clearly envisions interior plies being bonded along both surfaces such that the plies are incapable of independent movement or positioning relative to the adjacent plies. Farley further discusses that such adhesion is either inherent between the chemistry of the various film layers or various tie layers can be used to bind together ply layers that would not normally bond.

To the extent the Examiner has cited the multiple layer substrates in Col. 25 of Farley, Applicant notes that the end products of Farley are a single layer structure in which the various plies do not have any independent ability to move relative to the adjacent plies. In other words, the structures in Farley, even if applied to glass, plastic, paper or metal, form a single unitary layer which, while it may be of multiple plies, would still only constitute a single layer substrate if used as a ply component within a multiple paper ply bag. There is no teaching or suggestion in Farley to combine multiple unitary structures as disclosed in Farley to create a multiple paper ply bag as set forth in Applicant's claims. To the extent Farley always discloses bonded substrates having a film layer, there is no teaching or suggestion in Farley to incorporate layers of kraft paper or other uncoated or unlaminated paper plies as called for in Applicant's claims. Every structure set forth in Farley has multiple bonded layers to form a single unitary substrate of a film, sheet, or other coated material.

The paper coated combinations of A/B alluded to by the Examiner in Farley are a unitary substrate but do not provide for the multiple paper plies as that term is used in the art of multiple paper ply bags. Accordingly, Applicant respectfully submits that the teachings in Farley are misdirected to the extent they do not disclose or suggest multiple adjacent plies which are unsecured or unbonded to the adjacent plies.

Within Applicant's claimed subject matter of a multiple paper ply wall bag structure, the paper plies must not be bonded together or the resulting bag properties are severely diminished. Without the ability to have relative movement between adjacent plies, the bag structure would be excessively brittle and would lack the

strength characteristics needed to safely store and transport bulk items such as pet food.

Applicant respectfully submits that the art of reference does not teach or suggest the subject matter in Applicant's claim 4. Applicant specifically claims a fourth ply layer of a multiple paper ply bag in which the fourth ply layer comprises a paper having the defined weight of a polyethylene coating to which is affixed a biaxially oriented film layer. The film layer provides multiple benefits in terms of resulting bag strength, improved graphics and printing capabilities, and improved bag handling characteristics as disclosed in Applicant's specification. None of these attributes are taught or suggested for use in an exterior ply layer of a multiple paper ply bag product. Accordingly, Applicant respectfully submits that independent claim 4 and claim 6 are not rendered unpatentable by the cited references.

For reasons addressed above to Farley, it is respectfully submitted that claims 5, 7, and 8 are also in condition for allowance. The teachings of Farley of multiple-ply structures in which all the ply layers are adhesively bonded together to form a unitary structure directs one away from the desirability of Applicant's claimed invention in which a multi paper ply bag is provided where, by definition within the art, such paper ply layers are not adhesively bonded to each other except along margins associated with the bag opening.

To the extent the Examiner relies upon the cited reference of Chandler et al '160 for teachings of bags, Applicant notes that the Chandler reference is directed to a biodegradable plastic film. While it is known that films can be used to form "shipping sacks" as discussed in Chandler, there is no mention in Chandler of the desirability of including any paper ply layers or any multiple ply bags in order to form a sack. At best, Chandler can be interpreted that the non-paper containing resin film can be used to construct a single layer sack of the biodegradable resin.

To the extent the Rodish reference discloses kraft paper useful for a grocery bag, there is no teaching or discussion of using multiple plies of kraft paper in which the exterior ply has both a polyethylene coating as well as a biaxially film layer attached thereto.

In summary, Applicant respectfully submits that the references fail to establish a *prima facie* case of obviousness. No combination of the references discloses the multiple paper ply bag structure claimed by the Applicant. Further, there is no incentive for teaching in any of the references to combine a single paper substrate having a polyethylene coating and a biaxially film layer applied thereto to be used in combination with additional paper ply layers so as to provide a multi-wall, multi-ply paper bag having improved characteristics of strength, tear resistance, printability, and ease of handling.

Applicant is submitting with this response a Petition For Extension of Time and a check in the amount of \$60.00 for a one-month extension for a small entity.

Inasmuch as all outstanding issues raised by the Examiner have been addressed, it is respectfully submitted that the present application is in condition for allowance, and action to such effect is earnestly solicited. The Examiner is encouraged to telephone the undersigned at his/her convenience should only minor issues remain after consideration of the present Amendment, to permit early resolution of same.

Please charge any additional fees required to Deposit Account No. 50-3172.

Respectfully submitted,

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